



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,528	08/22/2003	Shunichi Matsushita	238546US8CIP	8105
22850 7590 06/06/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER HELLNER, MARK	
			ART UNIT 3663	PAPER NUMBER
			NOTIFICATION DATE 06/06/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/645,528	MATSUSHITA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mark Hellner	3663	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05/21/2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5-14,17-22,24-28,30-70,73,74 and 76-79 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-14,17-22,24-28,30-35,73,74 and 76-79 is/are allowed.
- 6) ☒ Claim(s) 36-39,50,51 and 64 is/are rejected.
- 7) ☒ Claim(s) 40-49, 52-63 and 65-70 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's after final amendment of 05/21/2007 leaves all pending claims in allowable status. However, a review of all claims indicates that the examiner has made the following errors:

No argument was presented in applicant's response of 09/11/2006 with respect to the patentability of method claim 36.

The claim limitations argued are not present in claim 36.

As a result, the examiner is making the following non-final action to clarify the record.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 36 is rejected under 35 U.S.C. 102(e) as being anticipated by Islam (6,052,393).

Figure 20a of Islam discloses a depolarized source of pumping light comprising: at least one source of pumping light (230), the source being configured (Linearly Polarized) to produce pumping light having a predominant polarization state; at least

Art Unit: 3663

one depolarizer (240) comprising a birefringent optical component (polarization maintaining fiber) having a principle axis oriented at 45 degrees (launch at 45) with respect to the predominant polarization state and coupled to receive pumping light; and a Raman gain medium (Raman Amplifier) configured to receive the pumping light and amplify signals via Raman scattering.

The structure recited above directly reads on lines 1-8 of claim 36.

Lines 9-12 of claim 36 recite: "determining said degree of polarization of a pumping light source in accordance with a Raman gain medium ( this reads on the fact that the Islam pump has some unspecified degree of polarization and is taught to be coupled to a Raman gain medium), and selecting a light source having the determined degree of polarization so as to set a polarization degree of gain to a level lower than a predetermined polarization degree of gain value" (this language read on the coupling of the depolarized pump of Islam being coupled to the Raman gain medium medium because a depolarized pump reduces polarization dependent gain).

It is the examiners position that claim 36 broadly reads on Islam.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 37-39, 50, 51 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Islam.

Art Unit: 3663

Claims 37 – 39, 50, 51 and 64 recite known fiber types and pumping directions used in the combination of a pump source to a Raman gain medium.

As a result, these claims would have been suggested to the skilled artisan by the teaching of figure 20a of Islam.

Claims 40 – 49 and 52 – 63 and 65 - 70 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5-14, 17-22, 24-28, 30-35, 73, 74 and 76-79 allowed.

Any inquiry concerning this communication should be directed to Mark Hellner at telephone number 571 272 6981.

Mark Hellner

Primary Examiner

AU 3663

A handwritten signature in black ink that reads "Mark Hellner". The signature is written in a cursive, flowing style.